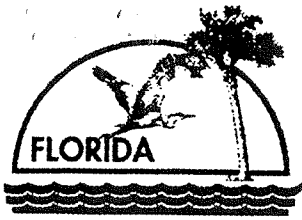


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LETTER REGARDING REGULATOR REVIEW AND COMMENTS TO THE REMEDIAL
INVESTIGATION/FEASIBILITY STUDY WORK PLAN FOR OPERABLE UNIT 2 (OU 2) WITH
ATTACHMENTS NTC ORLANDO FL
12/8/1995
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Lawton Chiles
Governor

Department of Environmental Protection

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

7457-10.0-35
09.01.02.0015
00569

May 11, 1995

Mr. Wayne Hansel
Code 18B7
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, South Carolina 29419-0068

RE: Remedial Investigation and Feasibility Study
(RI/FS) Workplan for Operable Unit 2, McCoy Annex
Landfill, NTC Orlando.

Dear Mr. Hansel:

I have completed the technical review of the subject document, dated January 1995 (received January 31, 1994). The comments below are based on review of the subject document and the discussions at the BCT Meeting of January 12 and 13, 1995 concerning OU-1 (North Grinder Landfill) and OU-2. The following comments, as well as enclosed memorandum to me from Mr. Greg Brown, P.E., should be addressed before the document is considered final:

1. Section 2.6, page 2-14. The text should be corrected to explain that sample locations based on statistics and a grid pattern are not biased samples, but are random or unbiased samples.
2. Section 2.7.1: The ingestion of and direct contact with groundwater by future area residents should be considered a likely pathway, not just a potential deviation from the considered pathways. Florida Water Quality Standards (Chapters 62-520 and 62-550, F.A.C.) were established to protect the quality of Florida's Class G-1 and G-II groundwater resources as potential drinking water supplies. Thus, even if the present scenario does not consider consumption and exposure to the groundwater; all future scenarios should consider groundwater consumption and exposure, as well as resource protection/restoration.
3. Section 3.4.1, Page 3-9: As decided at the meeting, one soil sample should be collected from each acre (99 samples), with each soil sample composed of a composite of five equidistantly spaced sample locations within each acre.

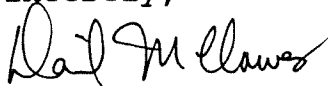
Mr. Wayne Hansel
May 11, 1995
Page 2

Note, discrete soil samples should be collected for VOC analysis; therefore, one VOC sample should be collected from the center sample location of each acre.

4. Section 5.1.4: Ranges of Remedial Goal Options (RGOs) for carcinogenic chemicals of concern (COCs) ($1E-4$ to $1E-6$) and hazard quotients (10, 1 and 0.1) for non-carcinogenic COCs are not acceptable. With the inclusion of the inhalation pathway in the calculation of RGOs/Cleanup Levels, FDEP default criteria are $1E-6$ for carcinogenic COCs and 1.0 hazard quotient for non-carcinogenic COCs.
5. Appendix A. The updated 1994 Florida Ground Water Guidance Concentrations booklet contains the Maximum Concentration Levels (MCLs) and numerical interpretations by Departmental toxicologists of the promulgated narrative minimum criteria standard. The Primary and Secondary Drinking Water Standards are established in Chapter 62-550, F.A.C. and promulgated as groundwater standards in Chapter 62-520, F.A.C. For those constituents in the booklet that do not have Primary or Secondary Drinking Water Standards, the Department considers their numerical interpretations as minimum criteria and trigger/screening values for assessment purposes. Furthermore, the Department would consider them cleanup levels unless alternate ones are approved by the Department.

If I can be of any further assistance with this matter, please contact me at (904) 921-9989.

Sincerely,



David M. Clowes, P.G.
Remedial Project Manager

/dmc

cc: LCDR Catherine Ballinger, NTC Orlando
Craig Brown, USEPA Region 4
Bill Bostwick, FDEP Central District
Susan Goggin, FDEP Natural Resource Trustee
Philip Georgariou, ABB, Jacksonville

TJB 3 JJC JJC ESN ESN

Memorandum

Florida Department of Environmental Protection

TO: David Clowes, Remedial Project Manager, Technical Review Section

THROUGH: Tim Bahr, P.G., Supervisor, Technical Review Section *B*

FROM: Greg Brown, P.E., Professional Engineer II, *AB*
Technical Review Section

DATE: May 5, 1995

SUBJECT: Draft Remedial Investigation and Feasibility Study (RI/FS) Workplan; Operable Unit 2; McCoy Annex Landfill; NTC Orlando; January 1995.

I have reviewed the subject document. In general, it is a complete, yet succinct document, that presents an RI/FS strategy roughly following the EPA's SACM approach. I limited my review to those elements related to the FS, but am noting some other issues that I came across that you should be aware of. I have the following general comments:

- The EPA's presumptive remedies for municipal landfills may not be completely transferable to the subject mixed industrial landfill. EPA has specific criteria for the use of presumptive remedies at municipal landfills that may not apply to this particular mixed industrial landfill. For example, if there is groundwater contamination, the investigators should consider the need to find source areas, or "hotspots", within the landfill that if removed would make the chosen presumptive remedies more effective and reliable.
- Landfill caps have other design criteria than just prevention of direct contact of source material with receptors. Infiltration, runoff, and erosion control, among others, should also be considered if applicable to the ultimate remedial design objectives.
- I'm glad to see a statistically based sampling scheme but I'm skeptical of the statistically "biased" [sic] approach proposed in the work plan. The proposed nonparametric approach may be robust assuming independent and uncorrelated data, but that generally doesn't exist in environmental data since it tends to be regionalized (i.e., spatially related). In addition, Region IV has expressed skepticism about statistical techniques such as nonparametric methods that can not estimate the power of the test. Some discussion is in order for this subject.

MEMORANDUM

David Clowes

May 5, 1995

Page Two

- Since the Navy is being "cutting edge", they may also wish to use the EPA's recent DQO process. This process defines two DQO categories: (1) screening data, with definitive confirmation, and (2) definitive data. Use of this process may further "streamline" the RI/FS while maintaining protectiveness.
- The FS will be an engineering document and the Final FS should be signed, sealed, and dated by the Florida registered Professional Engineer with responsible charge for its preparation. There are specific criteria for demonstrating engineering responsible charge in F.S. 471 and Rule 61G15, F.A.C. I also refer you to the Remedial Action Plan Guideline, ESS-13, prepared by the Bureau's Engineering Support Section. Although this guideline was prepared specifically for Remedial Action Plans, it contains useful guidance for other engineering documents prepared in the State of Florida and submitted to a public agency for review and approval. In particular, the letter from the Office of the Attorney General dated November 5, 1992, and referenced in ESS-13 indicated:

"There are individuals and companies not licensed as engineers or geologists who do "environmental consulting". Some of the individuals or companies have expertise in related areas (i.e., biology, chemistry, etc.). It is possible for some of these individuals and companies to play a role in the preparation of these documents, provided they do so under the direct supervision of a professional engineer or professional geologist."

Petroleum Cleanup Program

REMEDIAL ACTION PLAN GUIDELINES

ENGINEERING SUPPORT SECTION, BUREAU OF WASTE CLEANUP

History: New 9/10/93

Identification No.: ESS-13

Topic of Guideline: PE Certification Requirements

Thomas W. Conway 9/10/93
Signature and Date
SECTION ADMINISTRATOR

[Signature] 9/10/93
Signature and Date
BUREAU CHIEF

Remedial Action Plans and other "engineering" documents must be prepared by, or under the direct supervision of, a professional engineer and must bear the signature and seal of a Florida registered professional engineer (P.E.). The term direct supervision contemplates ongoing control over the work. This control should be manifested at all stages of the project, and not simply the review of the finished work of an unlicensed professional. Additionally, it has been determined that no P.E. may practice as an employee or officer of a corporation or partnership unless the corporation or partnership has a certificate of authorization. Attached as Exhibit A are a memorandum and letter from the State of Florida Office of the Attorney General regarding these requirements.

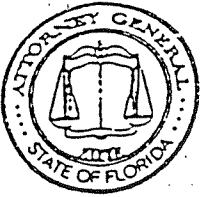
The practical implications of these requirements are that it is not appropriate for a P.E. to provide a professional certification of a RAP or other engineering document if the P.E. is not an employee of the company that prepared the document, or even if the P.E. is an employee of the company that prepared the document, but the company does not have a valid certificate of authorization as an engineering business. The Department and contracted local programs will maintain lists of engineering businesses which have a current Certificate of Authorization from the Department of Professional Regulation. Based on the determination of the Office of the Attorney General, the Bureau of Waste Cleanup and contracted local programs will either return unreviewed engineering documents that do not conform with Chapter 471 of the state statutes or continue to review the document but notify the Department of Professional Regulation. This requirement applies to RAPs, RAP Addenda, RAP Modifications, Record Drawings and Site Rehabilitation Completion requests. Monitoring Only Plans may be signed and sealed by a P.E. or Florida Registered Professional Geologist.

For the benefit of companies that may have recently submitted or have plans to submit applications for a Certificate of Authorization from the Department of Professional Regulation, the effective date of this policy will be November 1, 1993.

It is not appropriate to include any disclaimer language in the RAP or the PE certification which exempts certain aspects of the RAP from the certification. A P.E. certification must be provided which covers all engineering aspects of the proposed design. It is not uncommon to seek the assistance of equipment vendors in determining design criteria and establishing design details for certain system components. The P.E. of record, however, must be knowledgeable and competent in the principles of these design aspects. The engineer of record must verify all design aspect are appropriate and the PE certification must cover these design details.

TC/tc

Attachment



OFFICE OF THE ATTORNEY GENERAL

DEPARTMENT OF LEGAL AFFAIRS

THE CAPITOL

TALLAHASSEE, FLORIDA 32399-1050

ROBERT A. BUTTERWORTH

Attorney General
State of Florida

M E M O R A N D U M

TO: All Concerned Parties

FROM: Edwin A. Bayo, Assistant Attorney General, Counsel
to the Florida Board of Professional Engineers *EB*

RE: Documents under Rule 17-770, F.A.C.

DATE: November 5, 1992

The Florida Board of Professional Engineers has received a number of questions relating to the preparation and review of environmental documents. In an effort to be of assistance, I have prepared this memorandum, outlining the Board's position on the following questions. Please be advised that the statements contained in this memorandum do not constitute an official opinion from the Attorney General's Office, nor a declaratory statement from the Board of Professional Engineers.

1) Who can prepare documents falling under the provisions of F.A.C. 17-770?

Rule 17-770 contemplates two documents: A Contamination Assessment Report (CAR), and a Remedial Action Plan (RAP). The Board of Professional Engineers position is that the CAR can be prepared by a Professional Geologist or by a Professional Engineer who possesses the required expertise in this area. From a legal standpoint, a Professional Engineer is authorized to perform this type of work if he is qualified by reason of his education and experience. Section 492.1165, F.S., specifically excludes the practice by professional engineers from the purview of the Geology Practice Act. Furthermore, Professional Engineers have practiced in the areas of geotechnical engineering and groundwater hydrology for decades. These areas, as well as soils investigation, foundation design, and others, are part of the scope of the practice of engineers.

The RAP is an engineering document. Depending upon the specifics, portions of a RAP could be sealed by a Professional Geologist; however, the overall certification must be done by a Professional Engineer.

Memorandum

November 5, 1992

Page Two

2) Under what conditions can a company prepare these types of documents?

It must be borne in mind that companies do not practice engineering or geology. Only individuals can practice engineering or geology. Both Section 471.023 and 442.111 provide, respectively, that the practice or offer to practice engineering or geology by individuals through a corporation or partnership is authorized only if the corporation or partnership has obtained a certificate of authorization from the appropriate Board. No P.E. or P.G. may practice as an employee or officer of a corporation or partnership, unless the corporation or partnership has a certificate of authorization.

There are individuals and companies not licensed as engineers or geologists who do "environmental consulting". Some of the individuals or companies have expertise in related areas (i.e. biology, chemistry, etc). It is possible for some of these individuals and companies to play a role in the preparation of these documents, provided they do so under the direct supervision of a professional engineer or professional geologist. The submittal, however, must not be from the unlicensed firm, but from the licensed professional. If the "XYZ Enviromental Consultants, Inc." submits a CAR or a RAP under their title block, signed and sealed by a P.E. or P.G., then engineering or geology services are being provided through that company, and that company must be duly authorized. A licensed professional is authorized to procure the services of unlicensed individuals or firms to assist the licensed professional and perform tasks under the licensed professional's direct supervision. An unlicensed individual or firm is not authorized to contract for engineering or geology services, do the work, and then seek a professional engineer or geologist to "review" the plans, and then sign and seal them.

Any company or partnership authorized to perform engineering or geology services should have no problem supplying their authorization number, or a copy of their certificate of authorization, if requested. If any person reviewing these documents has any doubts, they can call the Board office (904) 488-9912 for engineers; (904) 487-7990 for geologists, to check on the company's status.

3) What constitutes work done under the direct supervision of a P.E. or P.G.?

Memorandum
November 5, 1992
Page Three

The term direct supervision contemplates ongoing control over the work. This control should be manifested at all stages of the project, and not simply the review of the finished work of an unlicensed individual. Furthermore, the professional must be capable of doing the work himself in order to be able to be the supervisor of another doing that work. The Board of Professional Engineers is currently reviewing their rules to further define and elaborate on this area.

The issue of whether the professional who sealed the work was in responsible charge of that work usually comes up during the review of plans, when errors or similar matters are pointed out to the licensee, and he demonstrates some difficulty in responding, or lack of knowledge over specifics. If a reviewer has any concerns in this area, he or she should ask whatever questions are necessary to settle the issue. If the answer to the questions is not sufficient to clarify the issue, then the matter should be referred to a supervisor, and if required a complaint filed with D.P.R.

If a reviewer receives a document he or she believes was not prepared under proper professional supervision, and the document is proper in all material respects, the document should be accepted for review. A statement outlining the specifics of that situation, and the reasons for the concern, should be forwarded to D.P.R. for an investigation.

4) Is it proper to request a copy of an individual's license to insure that only authorized persons are submitting these documents?

The fact that an individual holds a seal as a P.E. or a P.G. should be considered as reasonable proof that he or she is currently licensed. Engineers or geologists who are suspended from practice are asked to turn in their seals during the suspension. If a reviewer has a concern regarding a professional's licensure status, the reviewer should contact the respective board office.

EAB/mmc